

Remarks/Arguments

35 U.S.C. §103

Claims 1, 5-6, 8, 11 and 13, stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ammar et al. (U.S. Publication No. 2004/0203528 A1; hereinafter “Ammar”), in view of Birleson (U.S. Publication No. 2007/0182866 A1; hereinafter “Birleson”).

Applicant respectfully disagrees with Examiner’s assertion that Birleson discloses a configurable rejection filter as described in the present claims and asserts again that neither Ammar nor Birleson, alone or in combination, discloses a configurable rejection filter which comprises:

“a guided structure with a replaceable cover, wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element,”

as described in claim 1.

Among the problems addressed by the present invention is the cost and difficulty of upgrading the outdoor unit of a satellite reception terminal for use with different bands. To address these problems, the present application describes an upgradable outdoor unit of a reception terminal, including a return channel, capable of covering several bands or sub-bands, which can be easily configured and installed on site without the intervention of a professional so as to noticeably reduce installation costs.

The invention relates more particularly to an outdoor unit of a reception terminal including a return channel which comprises: a local oscillator providing a signal with a frequency that can be selected from at least two frequencies, a transposition means that transposes a signal to be transmitted using the signal provided by the local oscillator, a wideband filtering means that allows through signals whose frequency corresponds to the

transposed signal independently from the frequency of the local oscillator, and a configurable rejection filter depending on the frequency selected for the local oscillator; wherein the configurable rejection filter comprises a guided structure with a replaceable cover, wherein said replaceable may be either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element. Thus, depending on the selected configuration, the configurable filter of the invention is either a band rejection filter or a non-filtering element.

Ammar teaches “a lightweight millimeter wave outdoor unit that includes a lightweight housing with a heat sink and mounting member configured for mounting on the antenna to form a wireless link. A millimeter wave transceiver board is formed of ceramic material and mounted within the housing. It includes a millimeter wave transceiver circuit that has microwave monolithic integrated circuit (MMIC) chips and operable with the transmit and receive boards. An intermediate frequency (IF) board has components forming an intermediate frequency circuit operable with the millimeter wave transceiver circuit. A frequency synthesizer board has a signal generating circuit for generating local oscillator signals to the transceiver circuit. A controller board has surface mounted DC and low frequency discrete devices thereon forming power and control circuits that supply respective power and control signals to other circuits on other boards. A quick connect/disconnect assembly is operative with the housing for allowing the housing to be rapidly connected and disconnected to the antenna circuit contact members interconnect circuits between boards.” (Ammar Abstract)

Ammar discloses the cover 62b of an outdoor unit, but does not disclose, nor does the Office Action assert that it discloses, a replaceable cover of a guided structure which transforms a configurable rejection filter into a band rejection filter or into a non-filtering element. Therefore, Ammar fails to disclose a configurable rejection filter which comprises “a guided structure with a replaceable cover, wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition

frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element,” as described in claim 1.

In Birleson, “a broadband integrated receiver for receiving input signals and outputting composite video and audio signals is disclosed. The receiver employs an up-conversion mixer and a down-conversion mixer in series to produce an intermediate signal. An intermediate filter between the mixers performs coarse channel selection. The down-conversion mixer may be an image rejection mixer to provide additional filtering.”
(Birleson Abstract)

The Office Action asserts that “Birleson clearly discloses that mixer 103 receives inputs from amplifier 102 and local oscillator 104. A first IF signal is generated in mixer 103 and provided to first IF filter 109 (read as configurable rejection filter).” (Office Action, pages 2-3)

The applicant disagrees with Examiner that the IF filter disclosed by Birleson is a configurable rejection filter. Birleson explains:

“Filter 109 is a band pass filter that provides coarse channel selection in tuner 10. As a matter of design choice, filter 109 may be constructed on the same integrated circuit substrate as mixers 103 and 110 or filter 109 may be a discrete off-chip device. Filter 109 selects a narrow band of channels or even a single channel from the television signals in the first IF signal.” (Birleson [0051])

The ability of filter 109 to select a band of channels does not imply configurability as described in the present claims. Although Birleson discloses a tuner comprising a first IF band pass filter 109 and a second filter 113 that may be constructed on the same integrated circuit substrate as mixers, or may be discrete off-chip device, Birleson makes no mention of a guided structure, a cover, or use of a replaceable cover to transform the filter from non-filtering to a band rejection function. Thus, it is respectfully asserted that the filter of Birleson is not a configurable rejection filter as the Office Action asserts.

Furthermore, Applicant respectfully disagrees with the assertion in the Office Action that the filter and mixer used “to generate a second IF signal” could be read as a configurable filter to operate as substantially non-filtering element, as the filter 109 is still functioning as a filter. Therefore, Birleson, like Ammar, fails to disclose a configurable rejection filter which comprises: “a guided structure with a replaceable cover, wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element,” as described in claim 1.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Ammar or Birleson, alone or in combination, that makes the present invention as claimed in claim 1 unpatentable. It is further submitted that independent claims 11 and 13 are allowable for at least the same reasons that claim 1 is allowable. Since dependent claims 5-6 and 8 are dependent from allowable independent claim 1, it is submitted that they too are allowable for at least the same reasons that their respective independent claims are allowable. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Having fully addressed the Examiner’s rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant’s representative at (609) 734-6804, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,

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